

ABSTRACT OF THE DISCLOSURE

A multiplex communication system includes a plurality of networks and a data relay unit. Each node included in each network resets a relay flag which is a predetermined bit of a data frame, when it sends the data frame to another node. If the data frame requires to be relayed, the data relay unit receives and relays the data frame. The data relay unit includes a relay flag check (RFC) section and a relay flag setting (RFS) section. The RFC section checks whether the relay flag of the data frame is set. If relay flag is set, the RFC section inhibits the data frame from being relayed. If the relay flag is not set, the RFC section allows the data frame to be relayed. The RFS section sets the relay flag of the data frame when the data frame is relayed.